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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/758,178

Applicant(s)

NOZAKI ET AL.

Examiner

ALBERT H. CUTLER

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-79 is/are pending in the application.

4a) Of the above claim(s) 2,6-8,11,15,18,20,21,23-28,30-58,60-63,72-75 and 77-79 is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,9,10,12-14,16,17,19,22,29,59,64-71 and 76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is responsive to application 10/758,178 filed on January 16, 2004.

Information Disclosure Statement

2. The Information Disclosure Statement (IDS) mailed on May 23, 2005 was received and has been considered by the examiner.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restrictions

4. Applicant's election with traverse of claims 1, 3-5, 9, 10, 12-14, 16, 17, 19, 22, 29, 59, 64-71 and 76 in the reply filed on December 18, 2007 is acknowledged. The traversal is on the ground(s) that the submitted subject matter of all species is sufficiently related that a thorough search for the subject matter of any one species would encompass a search for the subject matter of the remaining species. This is not found persuasive because all the species deal with different subject matter and would thus require a search in many different areas for many different concepts. This places a large search burden on the Examiner.

For instance, Species I (figures 4, 5, 6, 45, 64, 65) deals with two cameras working in a collaborative work environment which is classified in at least 348/143, 159, 207.99, 207.1 and 207.11. Species II (figure 7, 8, 40, 41, 42, 44) deals with auto-exposure and auto-white-balance which is classified in at least 348/222.1-225.1 and

348/362-366 and thus requires a separate search. Species III (figure 9, 10, 11, 51, 52) deals with performing consecutive shooting which is classified in at least 348/367 and thus requires a separate search. Species IV (figures 12, 13, 36) deals with writing to a storage card which is classified in at least 348/231.9 and thus requires a separate search. Species V (figures 14, 15, 16, 17, 68) deals with thumbnail images which is classified in at least 348/333.05 and thus requires a separate search. Species VI (figures 18, 19, 69) deals with signal transmission between cameras which is classified in at least 348/211.1-211.3 and thus requires a separate search. Species VII (figures 20, 35) deals with the camera battery/power supply which is classified in at least 348/333.13 and 348/372 and thus requires a separate search. Species VIII (figures 21, 22, 37, 38, 39) deals with the display which is classified in at least 348/333.01 and thus requires a separate search. Species IX (figure 23) deals with simultaneous shooting with multiple cameras which is classified in at least 348/14.01-14.03 and 348/159 and thus requires a separate search. Species X (figures 24, 25, 26, 46, 47, 48, 49, 50) deals with distance measurement and focus control which is classified in at least 348/345-356 and thus requires a separate search. Species XI (figures 27, 53, 54, 55, 56) deals with a flash or strobe which is classified in at least 348/370-371 and thus requires a separate search. Species XII (figures 28, 58, 59) deals with a warning indicator which is classified in at least 348/333.04 and 348/208.15 and thus requires a separate search. Species XIII (figure 29) deals with a shot prohibit which is classified in at least 348/211.4 and thus requires a separate search. Species XIV (figures 30, 60, 61, 62, 63) deals with memory card settings which is classified in at least 348/231.3,

231.7 and 231.8 and thus requires a separate search. Species XV (figures 31, 32, 66, 67) deals with browsing images which is classified in at least 348/333.03 and 333.11 and thus requires a separate search. Species XVI (figure 33) deals with deciding how much image data to transfer which is classified in at least 348/14.12 and thus requires a separate search. Species XVII (figure 34) deals with a monitor display of camera info which is classified in at least 348/333.02 and thus requires a separate search.

The requirement is still deemed proper and is therefore made FINAL.

5. Claims 2, 6-8, 11, 15, 18, 20, 21, 23-28, 30-58, 60-63, 72-75 and 77-79 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on December 18, 2007.

Specification

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

7. Claims 5, 12, 13, 14, 16, 22, 29 and 69 are objected to because of the following informalities: Lack of clarity and precision. Claims 5, 12, 13, 14, 16, 22, 29 and 69 recite a connector that connects to "other digital camera". This language is confusing as it is unclear what camera the claim is referring to. Please change these claims to

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indicate that the connector connects to "another digital camera", or something of similar nature. Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1, 3, 4, 9, 10, 22 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Morimoto et al.(US 6,774,935).

Consider claim 1, Morimoto et al. teach:

A digital camera system (figure 7) comprising:

a first digital camera(1); and

a second digital camera(1'), wherein

the first digital camera(1) and the second digital camera(1') are capable of communicating with each other(column 7, line 57 through column 8, line 28), and

the first digital camera(1) further comprising:

a first input/output device(213, figure 4) that sends/receives a data to and from the second digital camera(column 6, lines 12-15, column 6, line 62 through column 7, line 44);

a first plurality of operating devices(250, column 6, lines 27-31); and

a first detector(211) that detects an operation of any of the first plurality of operating devices(column 6, lines 27-55); and

the second digital camera(1') further comprising(The second digital camera is the same as the first digital camera. See figure 7, column 7, line 57 through column 11, line 45. As figure 4 shows the control system of the first digital camera(1), this is the same as the control system of the second digital camera(1'), since both cameras have the same features.):

a second input/output device(213, figure 4) that sends/receives a data to and from the first digital camera(column 6, lines 12-15, column 6, line 62 through column 7, line 44);

a second plurality of operating devices(250, column 6, lines 27-31);

a second detector(211) that detects an operation of any of the second plurality of operating devices(column 6, lines 27-55);

a judgment device(211) that judges which detection result was first detected, a detection result of the second detector or a detection result of the first detector input via the second input/output device, and a first controller(211) that controls the first digital camera based upon an operation of any of the second plurality of operating devices when the judgment device judges that the detection result of the second detector was

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detected prior to the detection result of the first detector(See figure 8, column 7, line 45 through column 8, line 13, column 6, lines 36-38. A master camera mode can be selected by either camera, thus making the other camera a slave camera. When the plurality of operating devices(250) including UP switch(6), DOWN switch(7) and shutter button(9) are used to select the master camera mode, the current camera is set as the master camera. The controller(211) of this camera is then used to control the slave camera, column 6, lines 36-38. Therefore, if the second camera(1') chooses the master camera mode first, the first camera(1) will become the slave, and will be controlled by the controller(211) of the second camera(1'). See also column 8, line 40 through column 9, line 42.).

Consider claim 3, and as applied to claim 1 above, Morimoto et al. further teach:

the first digital camera(1) further includes a second controller(211) controlling the first digital camera(1) based upon an operation any of the first plurality of operating devices(250) and the second controller(211) is prohibited from controlling the first digital camera(1) while the first digital camera(1) is being controlled by the first controller(See column 8, lines 8-13, S201 figure 17).

Consider claim 4, and as applied to claim 1 above, Morimoto et al. further teach:

the first digital camera(1) further includes a second controller(211) controlling the first digital camera(1) based upon an operation of any of the first plurality of operating devices(250) and the first controller(211) is prohibited from controlling the first digital

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camera(1) while the first digital camera(1) is being controlled by the second controller(See column 8, lines 8-13, S201 figure 17. If the first camera(1) is the master camera, then the controller of the second camera(1') is prohibited from controlling the first camera.).

Consider claim 9, Morimoto et al. teach:

A digital camera(1, figure 20) comprising:

an input/output device(213, figure 4) that sends/receives a signal to and from other apparatus(column 6, lines 12-15);

a judgment device that judges a type of the other apparatus connected to the input/output device(column 12, lines 24-29); and

a work mode changer that changes from a first work mode to a second work mode when the judgment device judges that the other apparatus is a digital camera(If the judgment device judges that the other apparatus is a printer or modem, the digital camera sends the data in the camera to the printer or modem, column 12, lines 30-41(i.e. operates in a first work mode). If the camera judges that the connected device is another digital camera, the camera instead operates in collaboration with the connected digital camera, column 7, line 61 through column 9, line 42.).

Consider claim 10, and as applied to claim 9 above Morimoto et al. further teach:

the first work mode is a mode in which the digital camera works on a stand-alone basis(The camera transmits data to the printer or modem on a stand-alone basis,

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column 12, lines 30-41.) and the second work mode is a mode in which the digital camera and the other digital camera collaborate to work(column 7, line 61 through column 9, line 42.).

Consider claim 22, Morimoto et al. teach:

A digital camera(1, figure 7, figure 4) comprising:

a connector that connects to another digital camera(1') via a communication line(see figure 7, column 7, lines 57-60);

a display device(10, figure 4) that displays an image data(column 3, lines 56-60);
and

a controller(211) that controls so as to let a plurality of image data including an image data stored into the other digital camera(1') appear in given order on the display device when connecting to the other digital camera via the connector(See column 8, lines 53-62, figures 13C and 13D.).

Consider claim 29, Morimoto et al. teach:

A digital camera(1, figure 7) comprising:

a connector that connects to another digital camera(1') via a communication line(see figure 7, column 7, lines 57-60);

a display device(10, figure 4) that displays an image data when connecting other digital camera via the connector(see figures 13-15);

a display instructor that instructs to display an image data stored into the other digital camera on the display device, and a transfer instructor that instructs the other digital camera to transfer an image data used for a display having a given number of pixels(See column 8, lines 53-62, column 11, lines 7-19. If the camera is in the "monitor remote control mode", then the image stored in the other camera is displayed on both displays, see figures 13C and 13D. The image data in the other camera is transferred to the first camera, column 11, lines 16-19. It is inherent that the display has a given number of pixels as LCD displays are comprised of pixels.).

10. Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Zhang et al.(US 6,864,911).

Consider claim 5, Zhang et al. teach:

A digital camera(11, figures 12A and 12B) comprising:

a connector(35) that connects to another digital camera(13) via a communication line(33, column 7, line 7 through column 8, line 32);

a setting device that sets a given item or given value to take a photograph, and a setting instructor that instructs via the connector so as to set the identical given item or given value at the same time to the other digital camera based upon a setting result of the setting instructor(See column 10, lines 28-60).

11. Claims 16, 17, 19, 59, 64, 65, 66, 67 and 68 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamasaki et al.(US 2003/0011683).

Consider claim 16, Yamasaki et al. teach:

A digital camera(10, figure 15) comprising:

a connector(1501) that connects to another digital camera(10') via a communication line(3, paragraph 0180);

an input device(17) that inputs camera information about the other digital camera via the connector(See figure 24, paragraphs 0179-0183. The input device inputs a thumbnail image, which is information about the storage contents of the other digital camera.); and

a display device(13) that displays the camera information(See S2404, figure 24, paragraph 0185).

Consider claim 17, and as applied to claim 16 above, Yamasaki et al. further teach:

the camera information is information that the other digital camera requires so as to take and store a photograph of a subject(See figure 19, paragraphs 0141-0144. The displayed information can also be information about the layer(1101) which the images belong to, and the folders in which they are stored).

Consider claim 19, and as applied to claim 16 above, Yamasaki et al. further teach:

the camera information is information in order for the digital camera to recognize a going status quo of the other digital camera(See paragraph 0142, figure 19).

Consider claim 59, Yamasaki et al. teach:

A digital camera(10, figure 15) comprising:

a connector(1501) that connects to another digital camera(10') via a communication line(3, paragraph 0180); and

a third camera information creator that creates a third camera information integrating a first camera information about the digital camera and a second camera information about the other digital camera when connecting to the other digital camera via the connector(See figure 20, paragraphs 0148 and 0149. Third image data comprised of thumbnail image data(2000) and folder image data(2002) is created which integrates first camera information(i.e. the current address) with second camera information(i.e. the original address in the other camera).).

Consider claim 64, Yamasaki et al. teach:

A digital camera(10, figure 15) comprising:

a connector(1501) that connects to another digital camera(10') via a communication line(3, paragraph 0180); and

a file name info creator(see 2000, figure 20) that creates information(2000) to name a file of an image data after a first camera information about the digital camera(i.e. the current address) and a second camera information about the other digital camera(i.e. the original address in the other camera) when connecting to the other digital camera via the connector(See paragraphs 0148 and 0149. Thumbnail image data(2000) is created which integrates first camera information(i.e. the current address) with second camera information(i.e. the original address in the other camera).).

Consider claim 65, and as applied to claim 64 above, Yamasaki et al. further teach:

the digital camera further includes a file name transmitting device that transmits to the other digital camera the file name information created by the file name info creator(See paragraph 0142. Thumbnail image data created via the file name info creator in camera 10 is transmitted to camera 10' when the two are connected.).

Consider claim 66, Yamasaki et al. teach:

A digital camera(10, figure 15) comprising:

a connector(1501) that connects to another digital camera(10') via a communication line(3, paragraph 0180); and

a folder name info creator(see 2002, figure 20) that creates information to name a folder(2002) storing an image data after a first camera information about the digital

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camera and a second camera information about the other digital camera when connecting to the other digital camera via the connector(See paragraphs 0148 and 0149. Folder image data(2002) is created which integrates first camera information(i.e. the current address) with second camera information(i.e. the original address in the other camera).).

Consider claim 67, and as applied to claim 66 above, Yamasaki et al. further teach:

the digital camera further includes a folder name transmitting device that transmits to the other digital camera the folder name information created by the folder name info creator(See paragraphs 0141 and 0142, figure 19).

Consider claim 68, and as applied to claim 66 above, Yamasaki et al. further teach:

the first camera information or the second camera information includes at least one of a maker name, a product name, a product model, a serial number and a version number of a software program(The address information indicating the previous and current locations of image data can include information inherent to an original information recording medium or original digital camera, paragraph 0149.).

12. Claim 76 is rejected under 35 U.S.C. 102(b) as being anticipated by Oie(US 6,188,431).

Consider claim 76, Oie teaches:

A digital camera(1a, figure 3) comprising:

a connector(47) that connects to other digital camera(1b) via a communication line(69);

a data transfer storage device(ROM, 41, figure 2, column 4, lines 24-28) that stores plural data transfer methods to send/receive a data to and from the other digital camera when connecting to the other digital camera via the connector(See figures 10, 11A-11G, column 7, line 59 through column 9, line 15. "Selective Transfer" and "Batch Transfer" methods are possible.);

a transfer method setting device that sets a predetermined data transfer method to send/receive a data to and from the other digital camera out of the data transfer methods stored into the data transfer storage device(see 73, figure 10); and

a judgment device that judges whether the predetermined data transfer method set by the transfer method setting device is capable of sending/receiving a data to and from the other digital camera(See 79, figure 10. The judgment device judges whether a page is protected or not. If the page is protected, it is incapable of being transmitted, column 8, lines 17-29).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto et al. in view of Noro et al.(US 7,106,364).

Consider claim 12, Morimoto et al. teach:

A digital camera(1, figure 7) comprising:

a connector that connects to another digital camera(1') via a communication

line(see figure 7, column 7, lines 57-60);

a plurality of operating devices(250, column 6, lines 27-31);

a controller(211) that controls the other digital camera(1') in response to an operation of the plurality of operating devices via the communication line(column 7, line 57 through column 8, line 13);

and a releaser that releases a control over the other digital camera(1') by the controller(column 9, lines 1-9).

However, Morimoto et al. do not explicitly teach a timer that counts a lapsed time after completion of a control based upon an operation of the plurality of operating devices, or that the digital camera releases a control over the other digital camera in response to an instruction of the timer.

Noro et al. are similar to Morimoto et al. in that Noro et al. teach of a camera which is subjected to external control(See figure 3, column 3, lines 1-34, column 5, lines 5-15, column 6, line 6 through column 7, line 40. An external device(52, 54, figure 3) can be granted permission to externally control a remote camera(58).).

However, in addition to the teachings of Morimoto et al., Noro et al. teach of a timer that counts a lapsed time after completion of a control based upon an operation of the plurality of operating devices(see S102, S103, S107, figure 6), and that the external device(52, 54) releases a control over the other digital camera(58) in response to an instruction of the timer(See S104, column 6, line 54 through column 7, line 40. If a predetermined time elapses after a control command, the camera starts automatic control instead of the control by the external device.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to release a control over the other digital camera taught by Morimoto et al. in response to an instruction by a timer as taught by Noro et al. for the benefit of preventing an undesirable video image of no interest from being picked up(Noro et al., column 1, lines 17-21).

Consider claim 13, Morimoto et al. teach:

A digital camera(1, figure 7) comprising:
a connector that connects to another digital camera(1') via a communication line(see figure 7, column 7, lines 57-60);
a plurality of operating devices(250, column 6, lines 27-31);
a controller(211) that controls the other digital camera(1') in response to an operation of the plurality of operating devices via the connector(column 7, line 57 through column 8, line 13).

However, Morimoto et al. do not explicitly teach a timer that instructs to halt at least a part of functions, or a storage device that stores so as to continue a control over the other digital camera by the controller in response to an instruction of the timer.

Noro et al. are similar to Morimoto et al. in that Noro et al. teach of a camera which is subjected to external control(See figure 3, column 3, lines 1-34, column 5, lines 5-15, column 6, line 6 through column 7, line 40. An external device(52, 54, figure 3) can be granted permission to externally control a remote camera(58).).

However, in addition to the teachings of Morimoto et al., Noro et al. teach a timer that instructs to halt at least a part of functions(See S102, S103, S107, figure 6, column 6, line 54 through column 7, line 40. A controller halts an external control function in favor of an automatic control upon the elapse of a predetermined time period.), and a storage device(26, figure 1, figure 2) that stores so as to continue a control over the digital camera by the controller in response to an instruction of the timer(See column 3, lines 25-34, column 6, line 54 through column 7, line 40. A storage device stores loci to

be traced by the camera in response to automatic control being initiated upon the expiration of the timer.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to halt at least part of functions taught by Morimoto et al. and continue control of the other digital camera via data stored in memory in response to an instruction of a timer as taught by Noro et al. for the benefit of preventing an undesirable video image of no interest from being picked up(Noro et al., column 1, lines 17-21).

16. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto et al. in view of Wolf et al.(US 2004/0201688).

Consider claim 14, Morimoto et al. teach:

A digital camera(1, figure 7) comprising:

a connector that connects to another digital camera(1') via a communication line(see figure 7, column 7, lines 57-60);

a plurality of operating devices(250, column 6, lines 27-31);

a controller(211) that controls the other digital camera(1') in response to an operation of the plurality of operating devices via the connector(column 7, line 57 through column 8, line 13).

However, Morimoto et al. do not explicitly teach a disconnect detector that detects a disconnect to the other digital camera via the connector, or a releaser that

releases a control over the other digital camera corresponding to a detection result of the disconnect detector.

Wolf et al. are similar to Morimoto et al. in that Wolf et al. teach of a camera(10, figure 1) which is connected to a host(See paragraphs 0002, 0004, 0016, 0019, 0022, 0026, 0027).

However, in addition to the teachings of Morimoto et al., Wolf et al. teach a disconnect detector that detects a disconnect to the other digital camera via a connector, and a releaser that releases a control over the other digital camera corresponding to a detection result of the disconnect detector(See paragraph 0067. If a user disconnects the digital camera from the host, the camera layer is notified(i.e. the disconnection is detected) and all requests targeted for the digital camera are blocked(i.e. the digital camera is released).).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include a disconnect detector as taught by Wolf et al. in the host camera taught by Morimoto et al. for the benefit that requests targeted at a non-connected camera can be blocked, and confusion due to communication failure can be prevented(Wolf et al., paragraph 0067).

17. Claims 69, 70 and 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minakuti(US 2003/0071912) in view of Morimoto et al.

Consider claim 69, Minakuti teaches:

A digital camera(1, figure 10) comprising:

a first timer(101, paragraph 0055) that instructs to start counting after a camera work is finished and halt at least a part of functions after a first given period of time elapses(See paragraphs 0090-0094. If a predetermined time elapses, the camera enters a power save mode. See paragraphs 0125-0136.);

a collaborator that collaborates to work by connecting to an external device(2, figure 10) having a second timer (201, paragraph 0065) instructing to start counting after a work of the external device is finished and halt at least a part of functions after a second given period of time elapses(See paragraphs 0142-0145, paragraphs 0159-0173);

an override instruction signal creator that instructs to override a work of the second timer while a camera is actually being working at a time of a the collaborating work and during the first given period of time(See paragraphs 0165-0169. See also figure 20. If a signal is received by the external device from the camera, the timer is reset(i.e. overridden, S804).); and

an outputting device(13, figure 3) that outputs to the external device(2) an instruction signal created by the override instruction signal creator(Any signal received in the external device from the camera acts as an instruction signal to override the timer. See S803 and S804, figure 20. The camera can also send a "WakeUp" signal to override the power save mode, paragraphs 0165-0169.).

However, Minakuti does not explicitly teach that the external device is another digital camera.

Morimoto et al. similarly teach of a camera(1) operating with an external device in a master/slave configuration(figure 20), and that the slave device can be a printer(See 41A, figure 20, column 11, line 55 through column 12, line 48).

However, Morimoto et al. teach that the external device can also be a digital camera(1', figure 20).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have the external device taught by Minakuti comprise another digital camera as taught by Morimoto et al. for the benefit of providing an easy method of transferring images between two cameras without having to rely on a software of a host computer(Morimoto et al., column 1, lines 60-65).

Consider claim 70, and as applied to claim 69 above, Minakuti further teaches:
the digital camera further includes a last device detector that detects a device last finishing a work from the digital camera and the external device and an off-signal creator that instructs to halt at least a part of functions of both of the digital camera and the other device after any of the first given period of time or the second given period of time set(See paragraphs 0128 and 0162. A master device(i.e. a last device) can halt at least a part of functions of both devices when entering a power saving mode.).

Minakuti does not explicitly teach that the external device is another camera.

Morimoto et al. teach that the external device is another camera(see claim 69 rationale).

Consider claim 71, Minakuti teaches:

A digital camera comprising:

A digital camera(1, figure 10) comprising:

a first timer(101, paragraph 0055) that instructs to start counting after a camera work is finished and halt at least a part of functions after a first given period of time elapses(See paragraphs 0090-0094. If a predetermined time elapses, the camera enters a power save mode. See paragraphs 0125-0136.);

a collaborator that collaborates to work by connecting to an external device(2, figure 10) having a second timer (201, paragraph 0065) instructing to start counting after a work of the external device is finished and halt at least a part of functions after a second given period of time elapses(See paragraphs 0142-0145, paragraphs 0159-0173);

a timer override instruction that overrides works of the first timer and the second timer in a collaborating work(See paragraphs 0165-0169. See also figure 20. If a signal is received by the external device from the camera, the timer is reset(i.e. overridden, S804). See also figure 12. If a signal is received by the camera from the external device, the timer is reset(i.e. overridden, S112).);

a time detecting device that detects a work completion time of a digital camera last finishing a collaborating work(See figure 12, S103, S111. It is detected if the camera is being handled by a user, or if a printer signal is received(i.e. detected if work is still in progress).); and a third timer that instructs to start counting based upon a detection result of the time detecting device and halt at least a part of functions after a

third given period of time elapses(See S105, S112, figure 12. The camera timer acts as a third timer in steps 105 and 112 as compared to the first timer of step 102, because the timer is reset zero and initiates counting once again. When this timer reaches a predetermined value(S114), the camera enters power saving mode.).

However, Minakuti does not explicitly teach that the external device is another digital camera.

Morimoto et al. similarly teach of a camera(1) operating with an external device in a master/slave configuration(figure 20), and that the slave device can be a printer(See 41A, figure 20, column 11, line 55 through column 12, line 48).

However, Morimoto et al. teach that the external device can also be a digital camera(1', figure 20).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to have the external device taught by Minakuti comprise another digital camera as taught by Morimoto et al. for the benefit of providing an easy method of transferring images between two cameras without having to rely on a software of a host computer(Morimoto et al., column 1, lines 60-65).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ziemkowski(US 2003/0160870 and US 7,046,292) and Yamazaki(US 6,670,933) teach of multiple cameras working in a collaborative work environment(see abstracts, figures).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALBERT H. CUTLER whose telephone number is (571)270-1460. The examiner can normally be reached on Mon-Thu (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571)-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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